

INCH-POUND

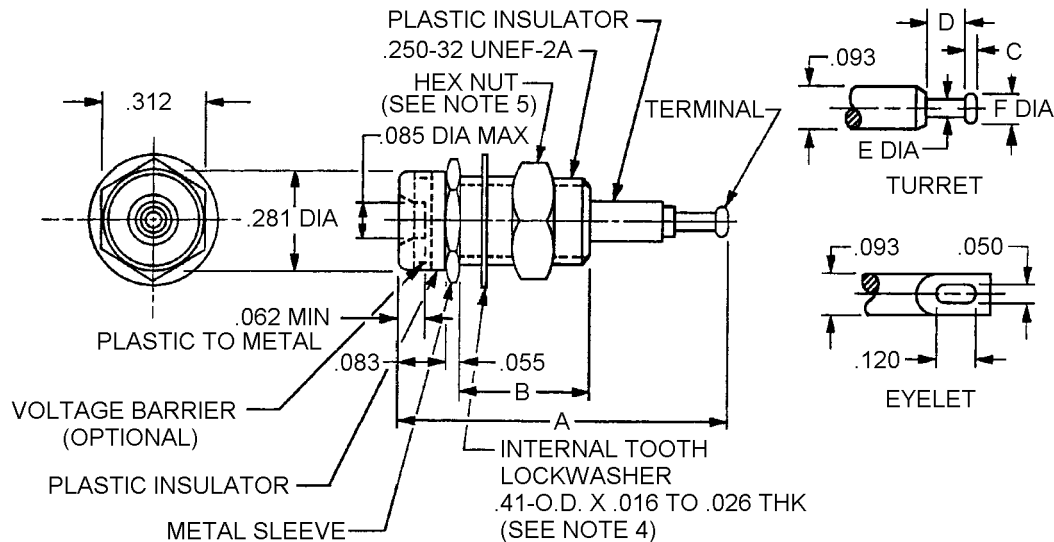
MIL-DTL-39024/1D  
3 February 2003  
SUPERSEDING  
MIL-C-39024/1C  
14 August 1991

## DETAIL SPECIFICATION SHEET

### CONNECTORS, ELECTRICAL, TEST POINT TYPE, PANEL TYPE; SINGLE TEST POINT (THREADED), LOW VOLTAGE

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein  
shall consist of this specification and MIL-DTL-39024.



#### NOTES:

1. Dimensions are in inches. (See table I for dimensions not shown on figure.)
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are  $\pm .010$  (0.25 mm) for three place decimals and  $\pm .03$  (0.8 mm) for two place decimals.
4. Parts supplied unassembled.
5. Hex nut .338 (8.59 mm)  $\pm .006$  (0.15 mm) across flats x .09 (2.3 mm)  $\pm .03$  (0.8 mm) thick.

Inches	mm	Inches	mm
.016	0.41	.085	2.16
.026	0.66	.093	2.36
.050	1.27	.120	3.05
.055	1.40	.250	6.35
.062	1.57	.281	7.62
.083	2.11	.312	7.92
		.41	10.4

FIGURE 1. Configuration and dimensions.

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TABLE I. Design and identification data.

Dash number	Terminal style	Dimensions <sup>1/</sup>						Insulation	
		A	B	C	D	E	F	Color	Number in accordance with FED-STD-595
-01	Turret	1.000 max (25.40)	.428 (10.87)	.030 (0.76)	.130 (3.30)	.070 (1.78)	.100 (2.54)	White	17875
-02	"	"	"	"	"	"	"	Red	11105
-03	"	"	"	"	"	"	"	Black	17038
-04	"	"	"	"	"	"	"	Brown	10075
-05	"	"	"	"	"	"	"	Green	14110
-06	"	"	"	"	"	"	"	Orange	12246
-07	"	"	"	"	"	"	"	Blue	15123
-08	"	"	"	"	"	"	"	Yellow	13655
-09	"	"	"	"	"	"	"	Gray	16187
-10	"	"	"	"	"	"	"	Purple	27144
-11	Turret	.703 .672 (17.86) (17.07)	.250 (6.35)	.020 (0.51)	.105 (2.67)	.060 (1.52)	.093 (2.36)	White	17875
-12	"	"	"	"	"	"	"	Red	11105
-13	"	"	"	"	"	"	"	Black	17038
-14	"	"	"	"	"	"	"	Brown	10075
-15	"	"	"	"	"	"	"	Green	14110
-16	"	"	"	"	"	"	"	Orange	12246
-17	"	"	"	"	"	"	"	Blue	15123
-18	"	"	"	"	"	"	"	Yellow	13655
-19	"	"	"	"	"	"	"	Gray	16187
-20	"	"	"	"	"	"	"	Purple	27144
-21	Eyelet	1.000 max (25.40)	.428 (10.87)					White	17875
-22	"	"	"					Red	11105
-23	"	"	"					Black	17038
-24	"	"	"					Brown	10075
-25	"	"	"					Green	14110
-26	"	"	"					Orange	12246
-27	"	"	"					Blue	15123
-28	"	"	"					Yellow	13655
-29	"	"	"					Gray	16187
-30	"	"	"					Purple	27144
-31	Eyelet	.750 .719 (19.05) (18.26)	.250 (6.35)					White	17875
-32	"	"	"					Red	11105
-33	"	"	"					Black	17038
-34	"	"	"					Brown	10075
-35	"	"	"					Green	14110
-36	"	"	"					Orange	12246
-37	"	"	"					Blue	15123
-38	"	"	"					Yellow	13655
-39	"	"	"					Gray	16187
-40	"	"	"					Purple	27144

<sup>1/</sup> Metric equivalents are in parentheses.

MIL-DTL-39024/1D

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1 and table I.

Terminals: Shall be capable of being wired with two type E, AWG 20 wires in accordance with NEMA-HP3. Configuration shall be specified on figure 1 and table I.

Test probe: .080 ± .001 inch in diameter and .438 inch (min) length.

Contact current rating: 5 amperes (max).

Contact resistance: A test probe in accordance MIL-DTL-39024 shall be fully inserted in the connector. With a current of 5 amperes, potential drop shall be measured between the connector terminal and the extreme end of the solder cup on the test probe. Measured values shall be 20 millivolts (max).

Dielectric withstanding voltage (at sea level):

Test voltage shall be as follows:

<u>Dash numbers</u>	<u>Volts, rms (60 Hz)</u>
-01 thru -10	3,000
-11 thru -20	2,500
-21 thru -30	3,000
-31 thru -40	2,500

Insertion and withdrawal forces:

Insertion force: 4.5 pounds (max).

Withdrawal force: 0.4 pound (min).

Identification marking:

Part or Identifying Number (PIN): M39024/1-(dash number from table I).

Operating conditions:

Operating voltage is as follows:

<u>Dash numbers</u>	<u>At sea level</u>	<u>At 50,000 feet</u>
-01 thru -10 and -21 thru -30	2,000 volts rms, 60 Hz	525 volts rms, 60 Hz
-11 thru -20 and -31 thru -40	1,800 volts rms, 60 Hz	500 volts rms, 60 Hz

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Maximum thickness of panel on which these connectors may be used is as follows:

<u>Dash numbers</u>	<u>Max panel thickness</u>
-01 thru -10	.234 inch
-11 thru -20	.094 inch
-21 thru -30	.234 inch
-31 thru -40	.094 inch

Qualification: Not applicable.

Quality conformance inspection. Groups A and B tests of MIL-DTL-39024 shall be applicable.

Note: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

## CONCLUDING MATERIAL

### Custodians:

Army - CR  
Navy - EC  
Air Force - 11  
DLA - CC

Preparing activity:  
DLA - CC

(Project 5935-4438-000)

### Review activities:

Army - AR, CR4, MI  
Navy - AS, MC, OS  
Air Force - 19